HP Pavilion DV3 Heatsink/Fan Replacement

This is a guide to removing and replacing the heatsink and fan unit from the HP Pavilion DV3.

Written By: Brandon Baldovin

INTRODUCTION

You will remove the heatsink and fan unit. This guide requires removing in excess of 35 screws and completely talking the laptop apart. Before you begin, have some way to organize and keep track of screws and small parts.

TOOLS:

- Phillips #1 Screwdriver (1)

Step 1 — Battery

- **Step 1 – Battery:** Locate the battery release slider on the bottom of the laptop and move it in the direction of the arrow to the unlock position.
- The yellow highlighted edge of the battery should pop up slightly when the switch is moved

Step 2

- **Step 2:** Using the edge of the battery that has popped up, lift the battery out of the computer.

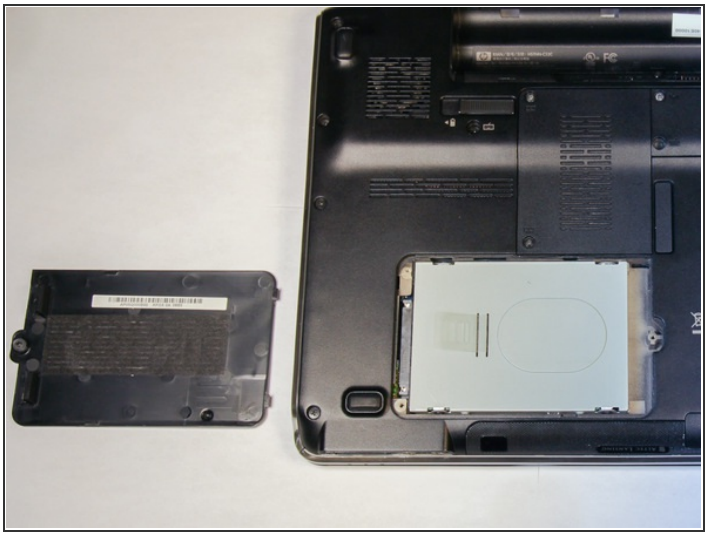
Step 3 — Hard Drive

Locate the screw for the hard drive cover (The cover has HP ProtectSmart written on it).

- Remove the 3.5 mm diameter, 7 mm long screw with your Phillips PH1 screwdriver.

The screw will remain attached to the cover.

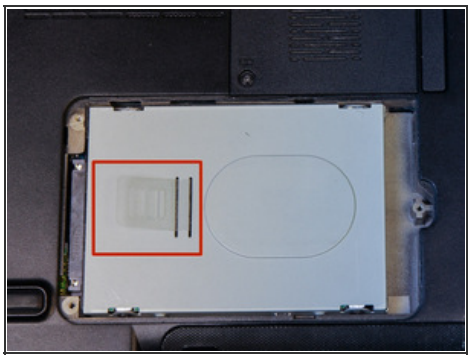
Step 4

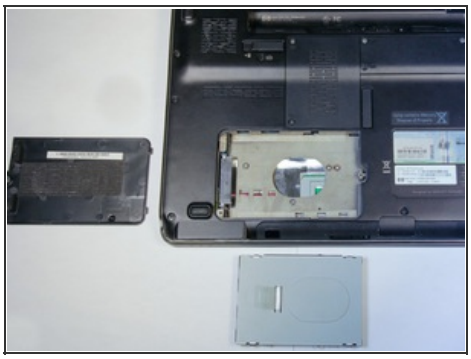


- Grab the raised edge of the cover lift up. This will separate the cover from the laptop.
- Put the cover and screw to the.

This will reveal the hard drive.

Step 5

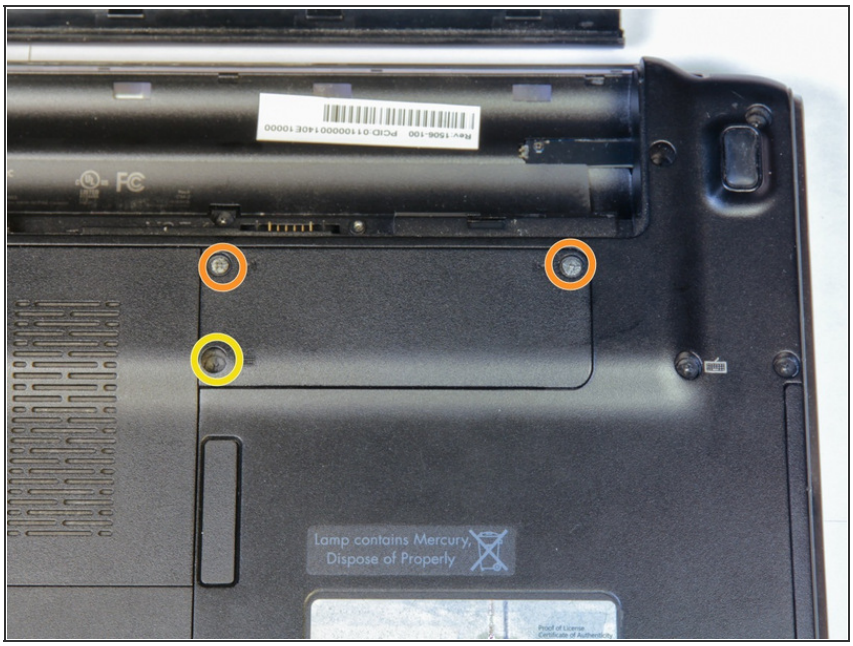




- With your fingers, grab the clear tab.
- Pull right first, and then upwards (towards you).

The hard drive should slide out of place and detach from the laptop.

Step 6 — Wireless Card



- With the laptop upside down, locate the three screws on the wireless card cover and unscrew the screws.
- All three screws will have a 3.5 mm diameter head.
- Two of the screws will be silver, 7mm in length, and will stay attached to the cover.
- One screw will be black, 13mm in length, and will separate from the cover. Set this screw aside.

Step 7

- Grab one of the edges to the cover and lift up (towards you).
- Set the cover to the side.

The wireless card will now be exposed.

Step 8

- Using your hand, pull the black and white antenna wires upwards.

This will disconnect the antenna wires from the card.

Step 9

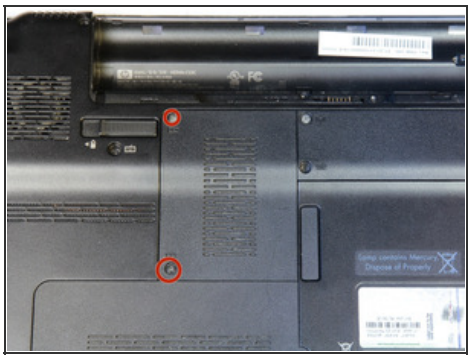
- Locate the two black screws connecting the wireless card to the laptop. They will have a 3.5 mm diameter head and be 4mm long. Remove the screws.

Once the screws are removed, the wireless card will pop up.

Step 10

- Grab the sides of the wireless card and pull it up and to the left to disconnect from the laptop.

Step 11 — RAM

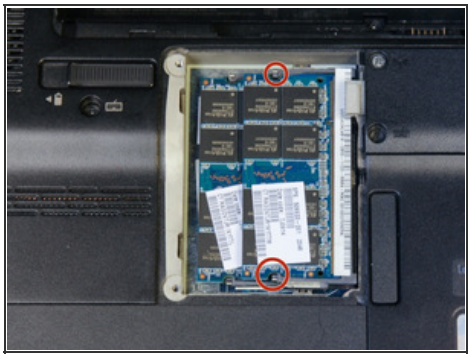


- Remove the two 3.5 mm diameter head and 7 mm long screws using the Philips PH1 screwdriver.

Both screws will remain attached to the cover.

- Set the cover with attached screws to the side.
- The RAM will now be exposed

Step 12



- Find the two clips located on each side of the RAM.
- Using both hands, simultaneously grab each clip and open them away from the RAM stick.

The RAM will pop up.

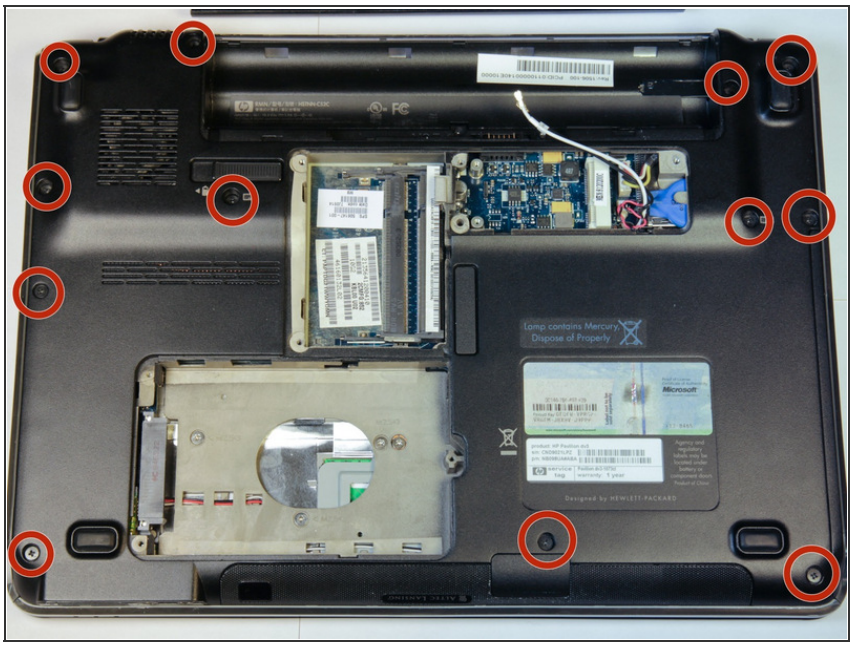
Step 13

- Using one hand, pull the RAM up and to the left to remove it.

Step 14

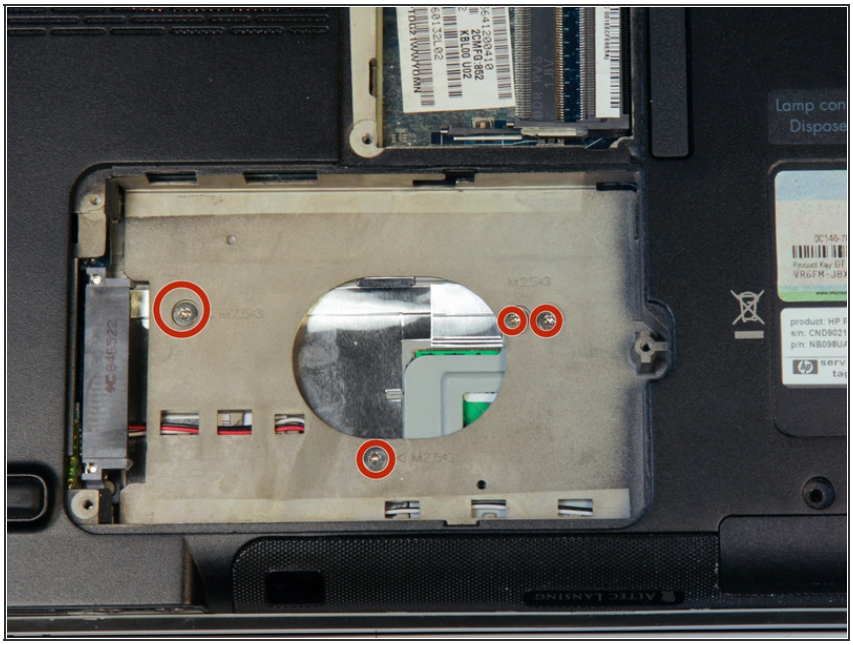
- If there is a second RAM module present (as shown), repeat steps 2 and 3 to remove it.

Step 15 — Heatsink/Fan



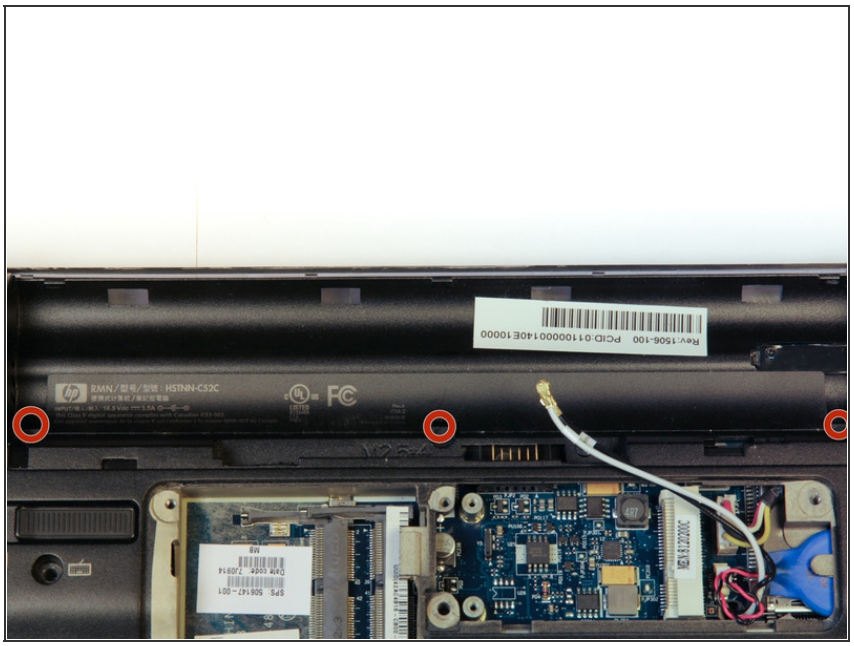
- Locate and remove all 12 black screws on the back cover. They have a 3.5 mm diameter head and are 13 mm in length.

Step 16



- Locate and remove the 4 silver screws beneath where the hard drive was located. They have a 3.5 mm diameter head and will be 3mm in length.

Step 17



- Locate and remove the three black screws beneath where the battery was located.

One screw is in the middle and the other two are in the inner corners. They are 6 mm in length and have a 3.5 mm diameter head.

Step 18

- Turn the laptop over so that it is right side up and the screen is open.

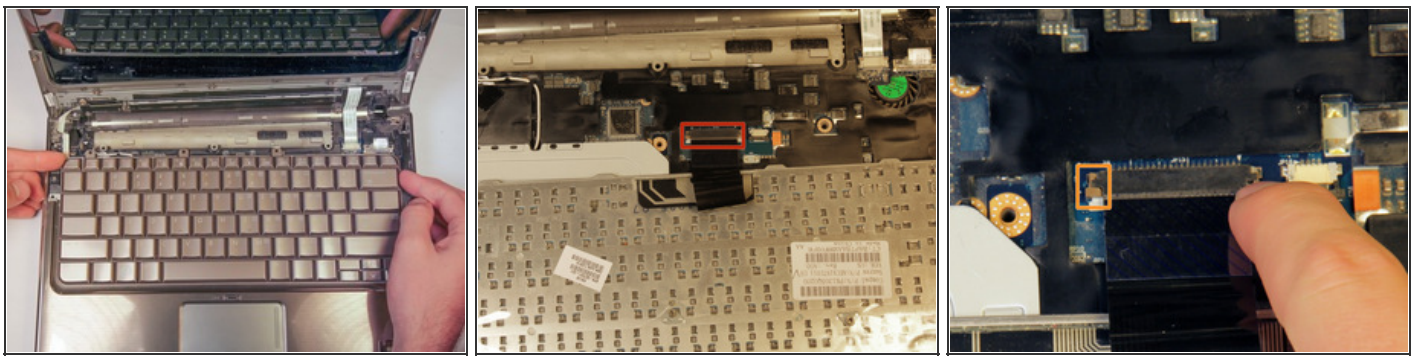
Step 19

- Locate the top trim piece, pull it up from the edges that are next to the keyboard, and rotate it open and away from you as shown.

Caution! The top trim piece is clipped in and may require significant force to move. Be careful not to break the two attached ribbon cables.

- Lean the trim piece against the screen.

Step 20

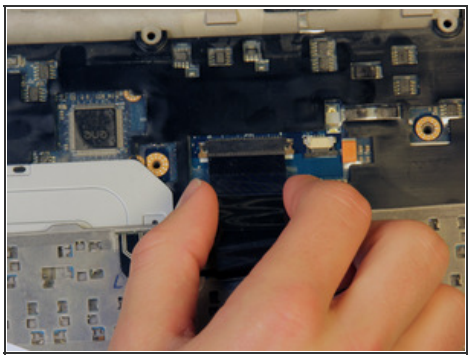
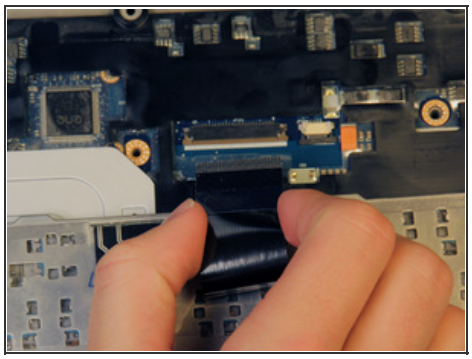


- Grab the top corners of the keyboard and pull the top towards you.

This will separate the keyboard from the laptop.

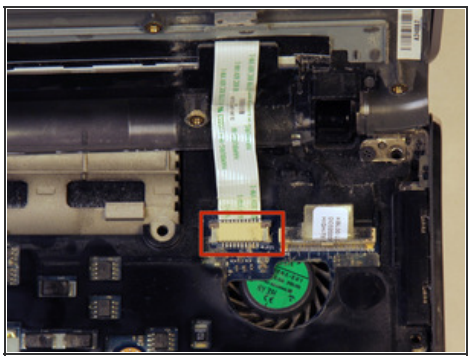
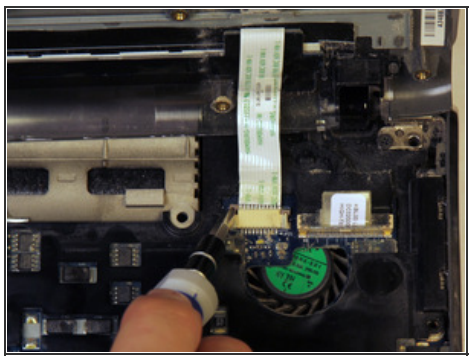
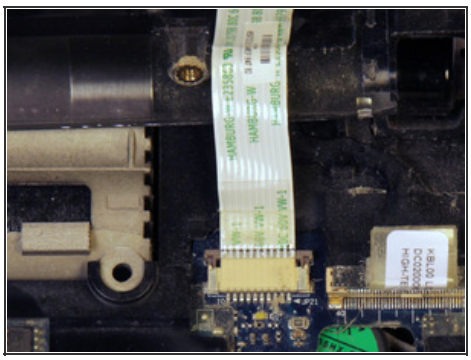
- Locate the black connector holding the keyboard ribbon cable.
- Use the screwdriver or your finger to slide the brown locks on each side of the black connector towards you.

Step 21

- Grab the ribbon cable and slide it towards you, out of the black connector.
- Lift the keyboard up and set it to the side.

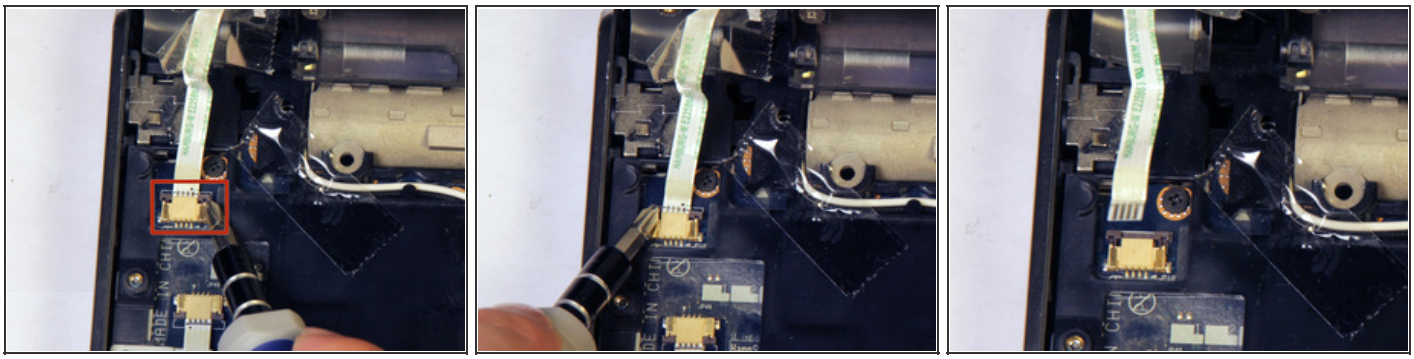
Step 22

- Locate the clip for the right ribbon cable attached to the top trim piece that was previously lifted up and push the locks away from you to open them.
- Once both locks are opened, slide the ribbon cable away from you and out of the clip.

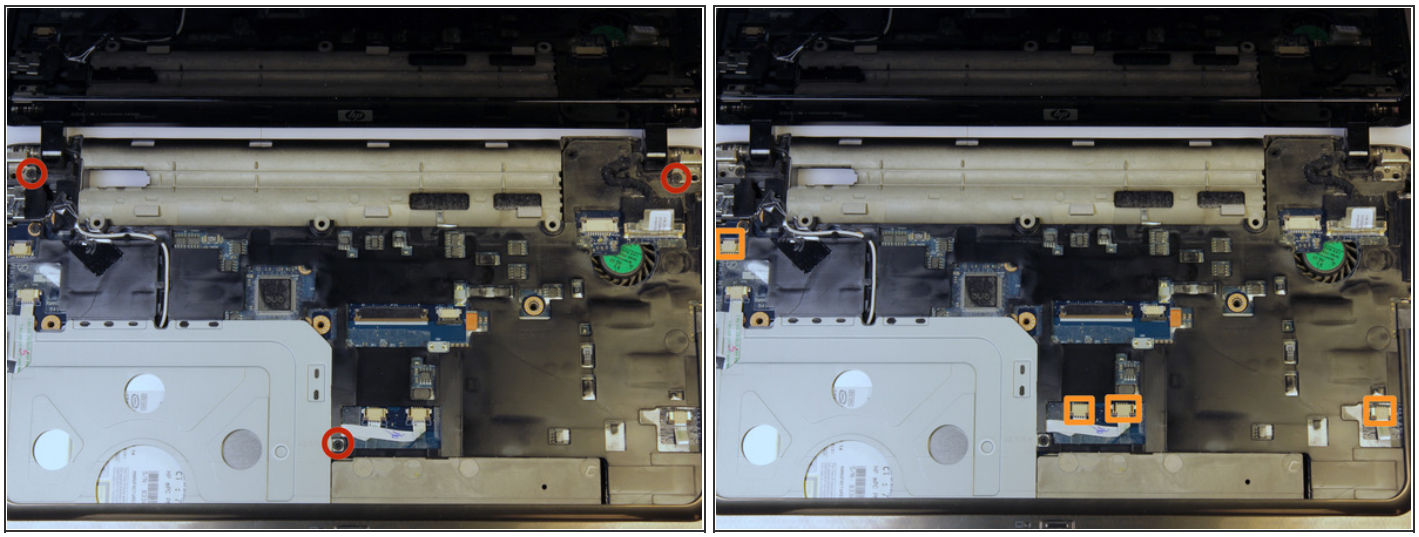
Caution! The cable should slide out very easily; do not force it. If it doesn't move, check to make sure the clips are pushed all the way away from you.

Step 23



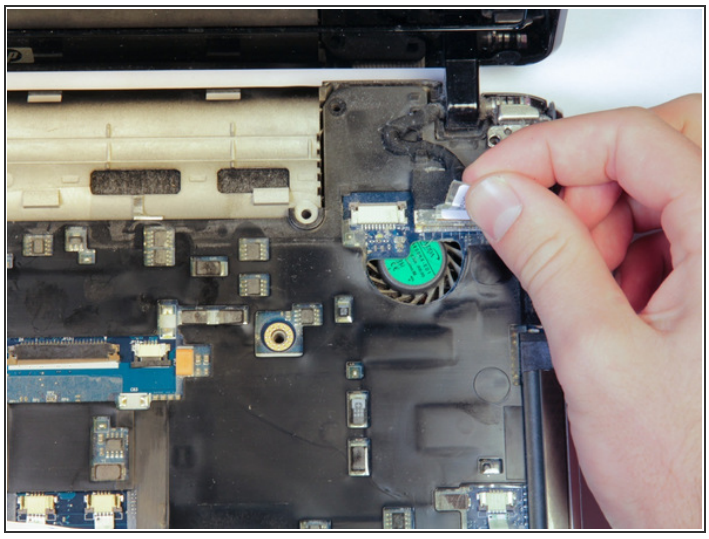
- Locate the clip for the left ribbon cable attached to the top trim piece that was previously lifted up. Repeat the process for the right ribbon cable in the previous step.

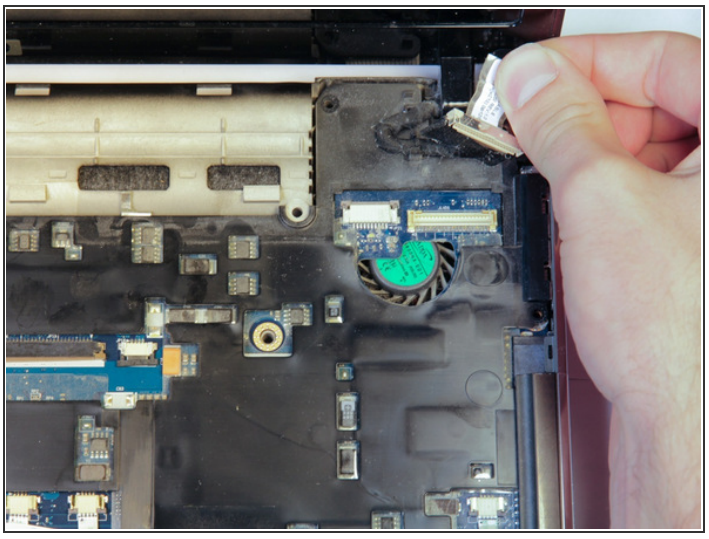
Step 24



- Locate and remove the 3 black 5mm long screws and set them aside. They will have a 3.5 mm diameter head.
- Locate the four connectors holding the four ribbon cables.
  - Slide the lock clips down for each connector (as in step 9) and slide each ribbon cable out.

Step 25

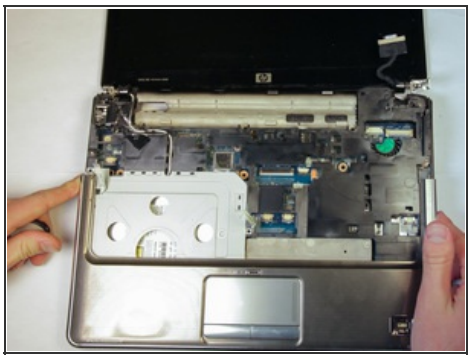




- Locate the connector holding the black screen cable and pull the clear tab up to detach the cable.
- Pull the black cable out of the two clips holding it to the frame.
- Once the cable is detached, lift the screen straight up out of the laptop to remove it. Set the screen down right above the laptop body, facing up.

Caution! There will still be a wire attached to the screen and laptop body; be careful not to break this wire.

Step 26



- Grab the bottom part of the palm rest and pull it up from the base of the laptop. Continue to pull up around the piece until all the clips release.

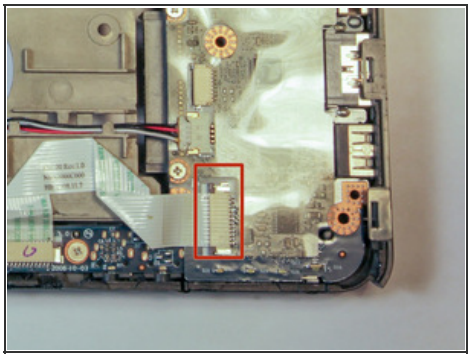
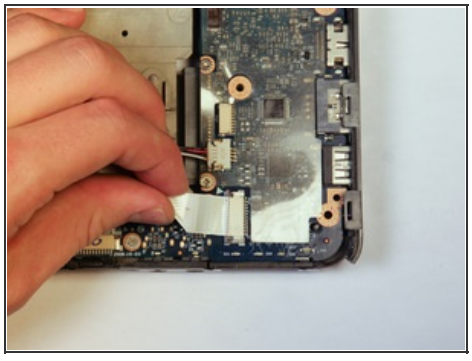
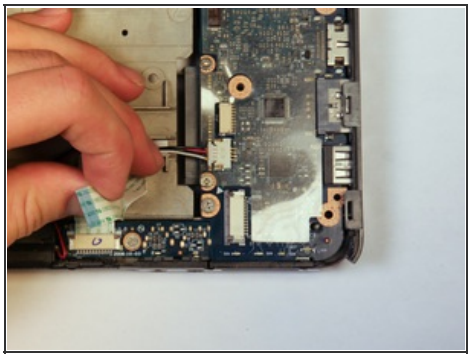
  It will take a significant amount of force to separate this piece.

- Rotate the piece up and away from you.

  Caution! Be sure the black and white antenna wires do not get stuck. You may need to help pull them through the hole.

- Lift the piece off the laptop and set it aside

Step 27

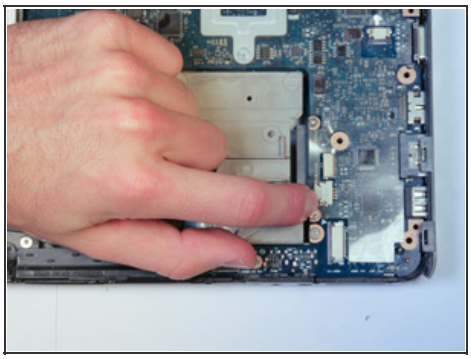
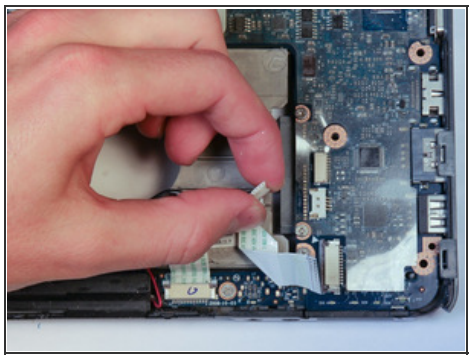
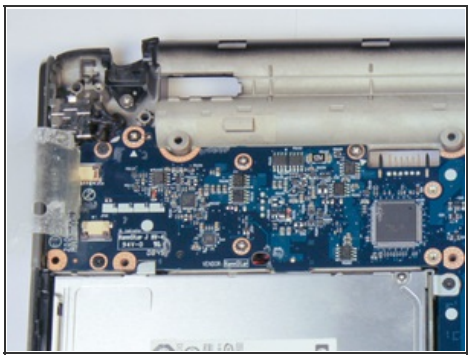




- Locate the connector for the ribbon cable at the bottom right of the laptop and push each lock to the left using a screwdriver or your finger.

- Once both locks are opened, slide the ribbon cable to the left and out of the clip.

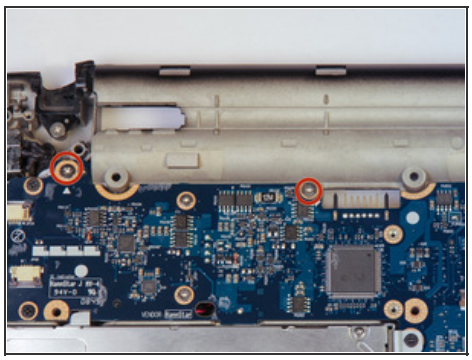
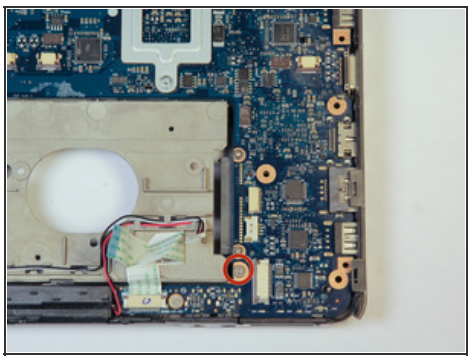
  Caution! The cable should slide out very easily; do not force it. If it doesn't move, check to make sure the clips are pushed all the way away from you.

Step 28

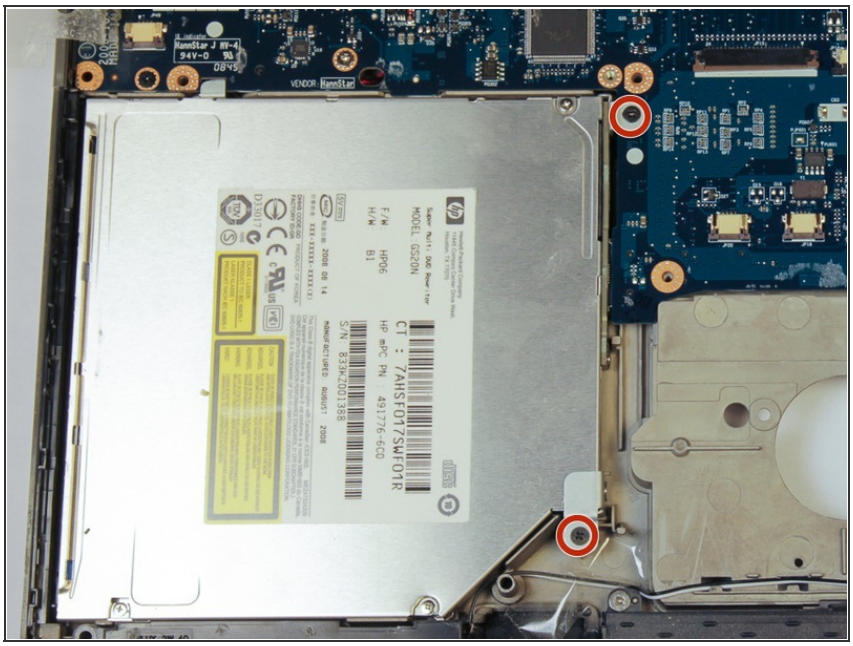
- Locate the small white connector holding red, white, and black cables and pull it to the left to remove it from the clip.
- Pull the clip to the left to remove it from the connector.
- There may be a plastic film covering the motherboard. Start at the front right corner (as pictured) and peel the film off, leaving about one cm of the top, left edge attached.

Step 29

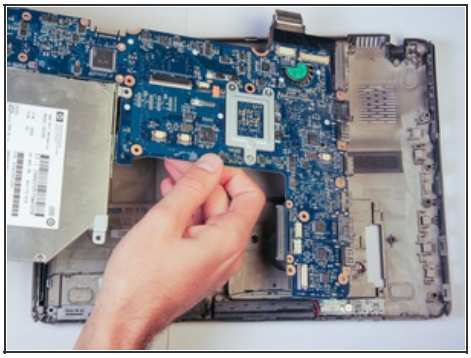
- Locate and unscrew the three, silver, 3.5mm diameter head, 3mm long screws on the motherboard.

Step 30



- Locate and remove the two black longscrews holding the CD drive. They will be 5 mm long and have a 3.5 mm diameter head.

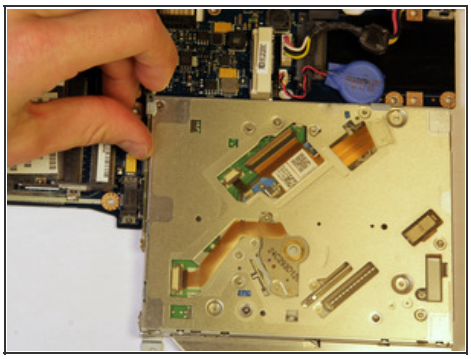
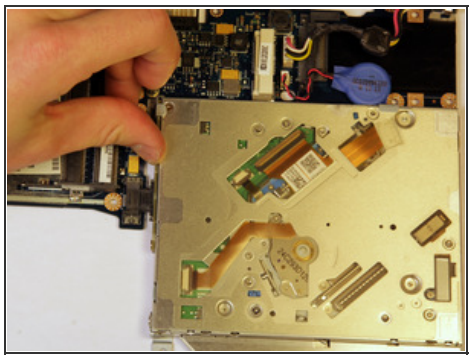
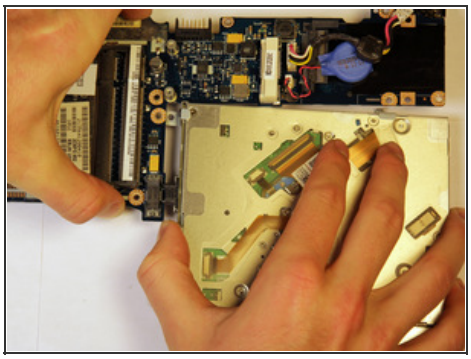
Step 31



The motherboard and CD drive need to come out at the same time because they are connected.

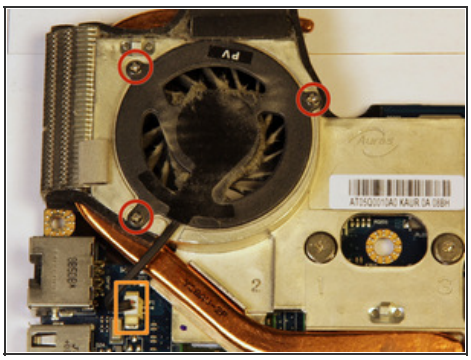
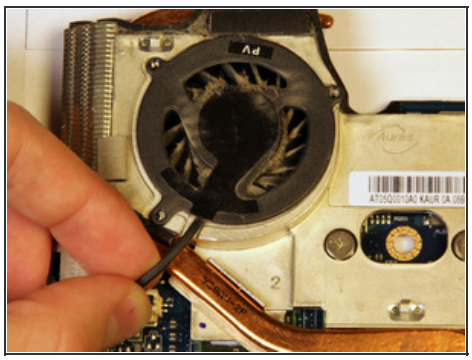
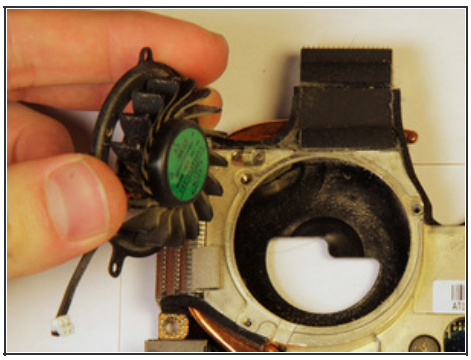
- Lift from the top left side of the motherboard and the bottom right lip of the CD drive.
- Lift the whole assembly up and slide it to the left to remove it from the laptop.
- Move the bottom case out of the way and then turn the motherboard assembly over and set it down in front of you.

Step 32

- Slide the CD drive to the right until it hits a stop.
- Hold the drive down and lift the motherboard up and away from the drive.

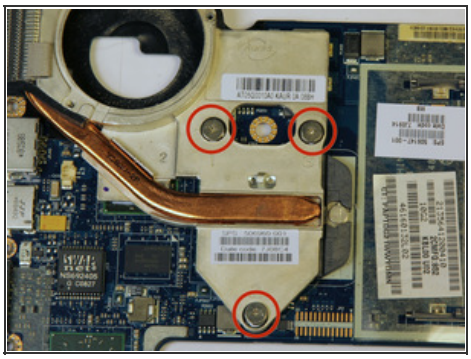
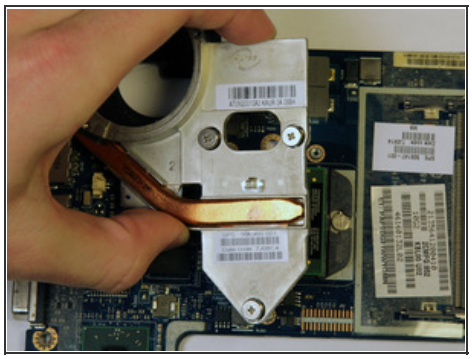
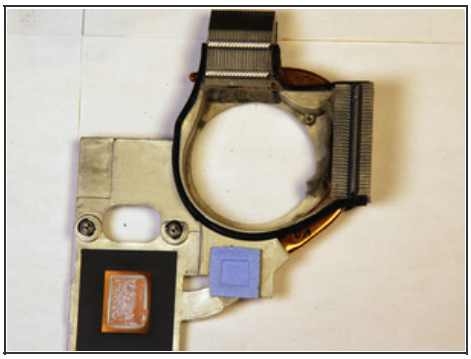
Step 33

- Locate and remove the three 3.5 mm diameter and 2.5mm long screws holding the fan in place.
- Locate the plug for the fan and pull up on it with your fingers to disconnect it.
- Lift the fan out.

You are now ready to clean or replace the fan.

Step 34

- Locate and unscrew the three large screws on the heatsink assembly. They will have a 3.5 mm diameter head and be 8 mm long.
- Carefully remove the heatsink and set it upside down to avoid damaging the component.

Warning! Do not touch the thermal paste on the heatsink or processor. This is potentially hazardous.

To reassemble your device, follow these instructions in reverse order.

This document was last generated on 2015-05-05 12:53:41 PM.